WASTE MANAGEMENT

Volume 21, Number 1 2001

CONTENTS

P. Pisciella, S. Crisucci, A. Karamanov, M. Pelino	1	Chemical durability of glasses obtained by vitrification of industrial wastes
M. Vondruska, V. Bednarik, M. Sild	11	Stabilization/solidification of waste ferrous sulphate from titanium dioxide production by fluidized bed combustion product
R. Cenni, B. Janisch, H. Spliethoff, K.R.G. Hein	17	Legislative and environmental issues on the use of ash from coal and municipal sewage sludge co-firing as construction material
C. Solisio, A. Lodi, M.D. Borghi	33	Treatment of effluent containing micropollutants by means of activated carbon
M.Y. Ghaly, G. Härtel, R. Mayer, R. Haseneder	41	Photochemical oxidation of *p*-chlorophenol by UV/H_2O_2 and photo-Fenton process. A comparative study
K.R. Cliffe, S. Patumsawad	49	Co-combustion of waste from olive oil production with coal in a fluidised bed
M. Kato, K. Urano	55	Convenient substitute indices to toxic equivalent quantity for controlling and monitoring dioxins in stack gas from waste incineration facilities
M. Kato, K. Urano	63	A measuring method of chlorobenzenes as a convenient substitute index of dioxins in stack gas from waste incineration facilities
S. Goñi, A. Guerrero, M.S. Hernández	69	Spanish LLW and MLW disposal: durability of cemented materials in (Na, K)Cl simulated radioactive liquid waste
Z. Bajza, V. Vrček	79	Thermal and enzymatic recovering of proteins from untanned leather waste
K.-S. Wang, C.-J. Sun, C.-Y. Liu	85	Effects of the type of sintering atmosphere on the chromium leachability of thermal-treated municipal solid waste incinerator fly ash
Technical notes		
M.-S. Wei, K.-H. Huang	93	Recycling and reuse of industrial wastes in Taiwan
N. Deveci, G. Çiftçi	99	A mathematical model for the anaerobic treatment of Baker's yeast effluents
R. Sivaraj, C. Namasivayam, K. Kadirvelu	105	Orange peel as an adsorbent in the removal of Acid violet 17 (acid dye) from aqueous solutions
	111	Patents Alert

Volume 21, Number 2 2001

SPECIAL ISSUE—ECOLOGICAL MANAGEMENT OF POST-MINING AREAS

CONTENTS

R.F. Huettl, A.D. Bradshaw	vii	Editorial
		Original contributions
W. Berger, F.D. Börner, H. Petzold	117	Consecutive geoelectric measurements reveal the downward movement of an oxidation zone
G. Grützmacher, R. Hindel, W. Kantor, R. Wimmer	127	Chemical investigations of aquifers affected by pyrite oxidation in the Bitterfeld lignite district
A. Schippers, P.-G. Jozsa, Z.M. Kovacs, M. Jelea, W. Sand	139	Large-scale experiments for microbiological evaluation of measures for safeguarding sulfidic mine waste
V. Kuráž	147	Soil properties and water regime of reclaimed surface dumps in the North Bohemian brown-coal region a field study
P. Nestler, R.D. Stoll	153	Stabilisation of bank slopes that are prone to liquefaction in ecologically sensitive areas
M. Lersow	161	Deep soil compaction as a method of ground improvement and to stabilization of wastes and slopes with danger of liquefaction, determining the modulus of deformation and shear strength parameters of loose rock
R. Gatzweiler, S. Jahn, G. Neubert, M.P. Paul	175	Cover design for radioactive and AMD-producing mine waste in the Ronneburg area, Eastern Thuringia
K.A. Morin, N.M. Hutt	185	Relocation of net-acid-generating waste to improve post-mining water chemistry
M. Kalin	191	Biogeochemical and ecological considerations in designing wetland treatment systems in post-mining landscapes
F. Glombitza	197	Treatment of acid lignite mine flooding water by means of microbial sulfate reduction
	205	Patents Alert

Volume 21, Number 3 2001

SPECIAL ISSUE—WASCON 2000: SCIENCE AND ENGINEERING OF RECYCLING FOR ENVIRONMENTAL PROTECTION

CONTENTS

G.R. Woolley, P.J. Wainwright, J.J.J.M. Goumans	211	Editorial
		Original contributions
V.M. John, S.E. Zordan	213	Research development methodology for recycling residues as building materials a proposal

H.A. van der Sloot, D. Hoede, D.J.F. Cresswell, J.R. Barton	221	Leaching behaviour of synthetic aggregates
G. Pecqueur, C. Crignon, B. Quénée	229	Behaviour of cement-treated MSWI bottom ash
M. Arm	235	Self-cementing properties of crushed demolished concrete in unbound layers: results from triaxial tests and field tests
P.J. Wainwright, D.J.F. Cresswell	241	Synthetic aggregates from combustion ashes using an innovative rotary kiln
E. Mulder, J.P. Brouwer, J. Blaakmeer, J.W. Frénay	247	Immobilisation of PAH in waste materials
B.B. Lind, A.-M. Fällman, L.B. Larsson	255	Environmental impact of ferrochrome slag in road construction
D. Deakin, L.J. West, D.I. Stewart, B.W.D. Yardley	265	Leaching behaviour of a chromium smelter waste heap
U.-M. Mroueh, P. Eskola, J. Laine-Ylijoki	271	Life-cycle impacts of the use of industrial by-products in road and earth construction
R.J. van Eijk, H.J.H. Brouwers	279	Modelling the effects of waste components on cement hydration
H. Motz, J. Geiseler	285	Products of steel slags an opportunity to save natural resources
R.T. Eikelboom, E. Ruwiel, J.J.J.M. Goumans	295	The building materials decree: an example of a Dutch regulation based on the potential impact of materials on the environment
	303	Patents Alert

Volume 21, Number 4 2001

CONTENTS

P.F. Hudak	309	Effective contaminant detection networks in uncertain groundwater flow fields
N. Alba, E. Vázquez, S. Gassó, J.M. Baldasano	313	Stabilization/solidification of MSW incineration residues from facilities with different air pollution control systems. Durability of matrices versus carbonation
J.Y. Kim, C.L. Kim, C.H. Chung	325	Leaching characteristics of paraffin waste forms generated from Korean nuclear power plants
Z. Wang, R.C. Moore, A.R. Felmy, M.J. Mason, R.K. Kukkadapu	335	A study of the corrosion products of mild steel in high ionic strength brines
H. Rho, H.A. Arafat, B. Kountz, R.C. Buchanan, N.G. Pinto, P.L. Bishop	343	Decomposition of hazardous organic materials in the solidification/stabilization process using catalytic-activated carbon
G. Rodriguez, A.V. Karpov, Y.P. Nalimov	357	Description and identification of difficulties arising from the application of a cleaning process in operating conditions for the treatment of components used on liquid metal fast reactors (LMFR). A technical designed approach to avoid these situations

J. Jung, J.K. Lee, P.S. Hahn	363	Development and application of a sorption data base for the performance assessment of a radwaste repository
H. Kanbe, M. Shibuya	371	Solvent cleaning of pole transformers containing PCB contaminated insulating oil
C. Namasivayam, R. Radhika, S. Suba	381	Uptake of dyes by a promising locally available agricultural solid waste: coir pith
P.S. Phillips, R.M. Pratt, K. Pike	389	An analysis of UK waste minimization clubs: key requirements for future cost effective developments
D.C.R. Espinosa, J.A.S. Tenório	405	Thermal behavior of chromium electroplating sludge
	411	Patents Alert

Volume 21, Numbers 5 2001

SPECIAL ISSUE—INTERNATIONAL CONFERENCE ON INCINERATION AND THERMAL TREATMENT TECHNOLOGIES

CONTENTS

A. Eicher	417	Editorial
		Original contributions
P.M. Lemieux, C.W. Lee, J.V. Ryan, C.C. Lutes	419	Bench-scale studies on the simultaneous formation of PCBs and PCDD/Fs from combustion systems
G.-Q. Liu, Y. Itaya, R. Yamazaki, S. Mori, M. Yamaguchi, M. Kondoh	427	Fundamental study of the behavior of chlorine during the combustion of single RDF
T.C. Ho, T.C. Chuang, S. Chelluri, Y. Lee, J.R. Hopper	435	Simultaneous capture of metal, sulfur and chlorine by sorbents during fluidized bed incineration
K. Nishida, Y. Nagayoshi, H. Ota, H. Nagasawa	443	Melting and stone production using MSW incinerated ash
A. Ono, M. Kurita, T. Nagashima, M. Horio	451	Evaluation of waste pyrolysis characteristics in a pressurized fluidized bed reactor
M. Stoll, J. Furrer, H. Seifert, G. Schaub, D. Unruh	457	Effects of flue gas composition on the catalytic destruction of chlorinated aromatic compounds with a V-oxide catalyst
C.E. Riley	465	Method development and implementation for co-planar polychlorinated biphenyls (PCBs)
G.D. Hinshaw, A.R. Trenholm	471	Hazardous waste incineration emissions in perspective
E.T. Wada, A.M. Sterling	477	Development and evaluation of a mass spectrometer-based continuous emission monitor for volatile organic compound emmissions from combustion devices
	483	Patents Alert

Volume 21 Number 6 2001

CONTENTS

C. Lu, M.-R. Lin, J. Lin	489	Treatment of methylacetate waste gas using a trickle-bed air biofilter
C.-P. Jen, S.-H. Li	499	Effects of hydrodynamic chromatography on colloid-facilitated migration of radionuclides in the fractured rock
E. Wieland, P. Spieler	511	Colloids in the mortar backfill of a cementitious repository for radioactive waste
L.Y. Li	525	A study of iron mineral transformation to reduce red mud tailings
A. Pinotti, N. Zaritzky	535	Effect of aluminum sulfate and cationic polyelectrolytes on the destabilization of emulsified wastes
A. Katz, A.R. Brough, R.J. Kirkpatrick, L.J. Struble, G.K. Sun, J.F. Young	543	Cement solidification of simulated off-gas condensates from vitrification of low-level nuclear waste solutions
M.A. Sørensen, E.P.B. Mogensen, K. Lundtorp, D.L. Jensen, T.H. Christensen	555	High temperature co-treatment of bottom ash and stabilized fly ashes from waste incineration
R. Saravanane, D.V.S. Murthy, K. Krishnaiah	563	Treatment of anti-osmotic drug based pharmaceutical effluent in an upflow anaerobic fluidized bed system
S.-H. Li, C.-P. Jen	569	Migration of radionuclides in porous rock in the presence of colloids: effects of kinetic interactions
R.R. Brey, R. Rodriguez, J.F. Harmon, P. Winston	581	Investigation of irradiated soil byproducts

Volume 21, Number 7 2001

CONTENTS

A. Rodriguez, M.J. Hall	589	Removal of an airborne low volatility metal under fuel-rich and fuel lean conditions through condensation onto soot and/or sorbent particles
S. Kim	609	Pyrolysis kinetics of waste PVC pipe
A.D. Read, M. Hudgins, P. Phillips	617	Perpetual landfilling through aeration of the waste mass; lessons from test cells in Georgia (USA)
N. Ortiz, M.A.F. Pires, J.C. Bressiani	631	Use of steel converter slag as nickel adsorber to wastewater treatment
J.A.S. Tenório, D.C.R. Espinosa	637	Treatment of chromium plating process effluents with ion exchange resins
T.H. Ergüder, U. Tezel, E. Güven, G.N. Demirer	643	Anaerobic biotransformation and methane generation potential of cheese whey in batch and UASB reactors

R. Cioffi, L. Maffucci, L. Santoro, F.P. Glasser 651 Stabilization of chloro-organics using organophilic bentonite in a cement-blast furnace slag matrix

C. Raposo, H.M. Roeser 661 Contamination of the environment by the current disposal methods of mercury-containing lamps in the state of Minas Gerais, Brazil

Technical note

M.I. Panayotova 671 Kinetics and thermodynamics of copper ions removal from wastewater by use of zeolite

677 Patents Alert

Volume 21, Numbers 8 2001

CONTENTS

P. Van Herck, C. Vandecasteele 685 Evaluation of the use of a sequential extraction procedure for the characterization and treatment of metal containing solid waste

Z. Aksu, J. Yener 695 A comparative adsorption/biosorption study of mono-chlorinated phenols onto various sorbents

Y.-C. Jang, T.G. Townsend 703 Occurrence of organic pollutants in recovered soil fines from construction and demolition waste

U. Tezel, E. Guven, T.H. Erguder, G.N. Demirer 717 Sequential (anaerobic/aerobic) biological treatment of Dalaman SEKA Pulp and Paper Industry effluent

Z. Abbas, B.-M. Steenari, O. Lindqvist 725 A study of Cr(VI) in ashes from fluidized bed combustion of municipal solid waste: leaching, secondary reactions and the applicability of some speciation methods

B. Kienzler, B. Luckscheiter, S. Wilhelm 741 Waste form corrosion modeling: comparison with experimental results

H.A. van der Sloot, D.S. Kosson, O. Hjelmar 753 Characteristics, treatment and utilization of residues from municipal waste incineration

Technical note

L.K. Pan, B.D. Chang, D.S. Chou 767 Optimization for solidification of low-level-radioactive resin using Taguchi analysis

773 Book reviews

777 Patents Alert

783 Announcement

I List of Contents and Author Index, Volume 21, 2001